

## CHILD LOUNGE

### Field of the Invention

This invention relates to support structures and sleeping devices for infants.

### Background of the Invention

Of all the challenges that face new parents, providing a newborn baby with a comfortable and safe place to sleep is among the most important to meet. Given this long-standing need, skilled artisans have devoted considerable effort toward sleeping structures and support devices that are adapted and arranged specifically for infants. Although the field of infant supports and sleeping devices has enjoyed a considerable amount of attention by those skilled in the art, existing infant supports and sleeping devices are cumbersome, difficult to construct, expensive, and incorporate structural features that still fail to provide infants with a safe and comfortable place to rest and play in both prone and supine positions. Given these

1 and other deficiencies in the art, the need for certain new  
2 and useful improvements is evident.

3

4       Accordingly, what is need is a child lounge that is  
5 inexpensive, easy to construct, that incorporates structure  
6 for safely and comfortably supporting a child in a prone  
7 position and in a supine position, that provides  
8 improvements for promoting relaxation and sleep, and that  
9 provides improvements for promoting strengthening of the  
10 neck and back of an infant held and supported by the child  
11 lounge in a supine position.

## Summary of the Invention

The above problems and others are at least partially solved and the above purposes and others realized in new and improved apparatus for holding and supporting an infant, which consists of a base including a proximal extremity, an opposing distal extremity, and edge therebetween. The base has an inclined surface that extends from the proximal extremity to the edge, and a generally horizontal surface that extends from the edge to distal extremity. A body-supporting harness assembly is attached to the base and located atop the inclined surface, and is movable between a first body supporting position away from the general horizontal surface and a second position toward the generally horizontal surface. The base has opposing sides. Further to the immediate embodiment are opposing, elongate lateral guards. One of the lateral guards is attached to the inclined surface adjacent one of opposing sides of the base, and extends from proximate the proximal extremity to proximate the edge. The other of the lateral guards is attached to the inclined surface adjacent the other of the opposing sides of the base, and extends from proximate the proximal extremity to proximate the edge. The opposing lateral guards cooperate to inhibit

1 lateral movement of an infant positioned therebetween on  
2 the inclined surface. Preferably, the lateral guards each  
3 taper upwardly from the proximal extremity of the base to  
4 the edge. Still further to this embodiment, is an elongate  
5 transverse body-supporting element, which is attached to  
6 the inclined surface adjacent the proximal extremity. A  
7 vibrator attached to the base, and is operable for  
8 vibrating the base. In a preferred embodiment, a pocket  
9 extends into the base underneath the generally horizontal  
10 surface, and the vibrator is disposed in the pocket.

11

12 Another apparatus embodiment for holding and  
13 supporting an infant consists of a base that includes a  
14 proximal extremity, an opposing distal extremity, and an  
15 edge therebetween. The base also includes an inclined  
16 surface that extends from the proximal extremity to the  
17 edge, and a generally horizontal surface that extends from  
18 the edge to distal extremity. In this preferred  
19 embodiment, a pocket extends into the base underneath the  
20 generally horizontal surface, which is adapted to receive  
21 therein a vibrator operable for vibrating the base. A  
22 body-supporting harness assembly is attached to the base,  
23 which is movable between a first body supporting position  
24 away from the general horizontal surface and a second

1 position toward the generally horizontal surface. In a  
2 particular embodiment, a vibrator disposed in the pocket.  
3 The base has opposing sides. Further to the immediate  
4 embodiment are opposing, elongate lateral guards. One of  
5 the lateral guards is attached to the inclined surface  
6 adjacent one of opposing sides of the base, and extends  
7 from proximate the proximal extremity to proximate the  
8 edge. The other of the lateral guards is attached to the  
9 inclined surface adjacent the other of the opposing sides  
10 of the base, and extends from proximate the proximal  
11 extremity to proximate the edge. The opposing lateral  
12 guards cooperate to inhibit lateral movement of an infant  
13 positioned therebetween on the inclined surface.  
14 Preferably, the lateral guards each taper upwardly from the  
15 proximal extremity of the base to the edge. Still further  
16 to this embodiment, is an elongate transverse body-  
17 supporting element, which is attached to the inclined  
18 surface adjacent the proximal extremity.

19

20 Yet another apparatus for holding and supporting an  
21 infant consists of a base including opposing sides,  
22 opposing proximal and distal extremities, and a transverse  
23 edge, between the proximal extremity and the distal  
24 extremity, that extends from one of the sides of the base

1 to the other of the sides of the base. The base has an  
2 inclined surface that extends from the proximal extremity  
3 to the edge, and a generally horizontal surface that  
4 extends from the edge to distal extremity. A body-  
5 supporting harness assembly, disposed atop the inclined  
6 surface, is attached to the base and is movable between a  
7 first body supporting position away from the general  
8 horizontal surface and a second position toward the  
9 generally horizontal surface. An elongate lateral guard  
10 attached to the inclined surface adjacent one of opposing  
11 sides of the base and extends from proximate the proximal  
12 extremity to proximate the edge, and an opposing elongate  
13 lateral guard is attached to the inclined surface adjacent  
14 the other of the opposing sides of the base and extends  
15 from proximate the proximal extremity to proximate the  
16 edge. The lateral guards cooperate to inhibit lateral  
17 movement of an infant positioned therebetween on the  
18 inclined surface. Preferably, the lateral guards each  
19 taper upwardly from the proximal extremity of the base to  
20 the edge. Further to this embodiment is an elongate  
21 transverse body-supporting element, which is attached to  
22 the inclined surface adjacent the proximal extremity and to  
23 the first and second lateral supports. A vibrator is  
24 attached to the base and is operable for vibrating the

1 base. In a particular embodiment, a pocket extends into  
2 the base underneath the generally horizontal surface, and  
3 the vibrator is disposed in the pocket.

4

5 Consistent with the foregoing summary of preferred  
6 embodiments and the ensuing specification, which are  
7 intended to be taken together, the invention also  
8 contemplates further apparatus and method embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

Referring to the drawings:

FIG. 1 is an isometric view of a child lounge shown as it would appear in use holding and supporting a child in a supine position;

FIG. 2 is an isometric view of the child lounge of FIG. 1 shown as it would appear in use holding and supporting a child in a prone position;

FIG. 3 is a top isometric view of the child lounge of FIG. 1 with a vibrator, shown in phantom outline, held therein;

FIG. 4 is a top plan view of the child lounge of FIG. 1;

FIG. 5 is a side elevational view of the child lounge of FIG. 1, the opposing side elevational view being a substantial mirror image thereof;

FIG. 6 is a rear end elevational view of the child

1 lounge of FIG. 1;

2

3 FIG. 7 is a top plan view of the child lounge of FIG.  
4 1 shown as it would appear in use holding and supporting a  
5 child in a supine position;

6

7 And FIG. 8 is a sectional view taken along line 8-8 of  
8 FIG. 7; and

9

10 FIG. 9 is a fragmented perspective view of the child  
11 lounge of FIG. 3, with portions thereof broken away  
12 illustrating a pocket formed into the child lounge and the  
13 vibrator disposed therein.

1 DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

2

3 Turning now to the drawings, in which like reference  
4 characters indicate corresponding elements throughout the  
5 several views, attention is first directed to FIGS. 1 and  
6 2, in which there is seen a child lounge, embodying the  
7 principle of the instant invention, generally indicated by  
8 the reference character 10. Lounge 10 is fashioned of a  
9 soft resilient foam material or other similar material or  
10 combination of materials so as to be comfortable for a  
11 child, and is adapted and arranged to hold and support an  
12 infant or small child in a supine position and in a prone  
13 position. FIGS. 1 and 7 illustrate lounge 10 as it would  
14 appear in use holding and supporting a child 30 in a supine  
15 position. FIG. 2 illustrates lounge 10 as it would appear  
16 in use holding child 30 in a prone position. Lounge 10 can  
17 be integrally formed, or fashioned as an assembly of two or  
18 more attached parts. Preferably, lounge 10 is upholstered  
19 in a conventional manner with a selected fabric.

20

21 Further to FIGS. 1 and 2 and also referring to FIG. 3,  
22 lounge 10 consists of a base 11 having a proximal extremity  
23 12, an opposing distal extremity 13, opposing lateral  
24 extremities or sides 14 and 15, a lower face 16, and an

1 upper face 17. Upper face 17 is characterized by an  
2 inclined surface 18 that extends from proximal extremity 12  
3 to an edge 19 of base 11, and a generally horizontal  
4 surface 20 that extends from edge 19 to distal extremity  
5 13. Edge 19 is transverse relative to base 11, in that it  
6 extends from side 14 to side 15. Inclined surface 18 is  
7 the main support surface for a child, and is considerably  
8 larger than horizontal surfaced 20 as generally  
9 illustrated. Inclined surface 18 is disposed at a given  
10 angle, that is preferably approximately 10-20 degrees  
11 relative to the horizontal and, moreover, relative to  
12 generally horizontal surface 20. Inclined surface 18 can  
13 be disposed at any desired and appropriate inclined angle  
14 relative to generally horizontal surface 20, such as less  
15 than 10 degrees or greater than 20 degrees.

16

17 As seen in FIGS. 1-3, a support 40 is attached to  
18 inclined surface 18 and projects outwardly therefrom.  
19 Support 40 is generally U-shaped and consists of three main  
20 components, namely, opposing, elongate lateral guards 41  
21 and 42, and an elongate transverse body-supporting element  
22 43. Referring also to FIGS. 4 and 7, element 43 is  
23 generally parallel to edge 19, is disposed adjacent  
24 proximal end 12, and has opposing ends 50 and 51, in which

1 end 50 is directed toward side 14, and end 51 is directed  
2 toward side 15. Lateral guard 41 has a proximal end 52,  
3 which is disposed proximate proximal extremity 12 and  
4 attached to end 50 of element 43, and an opposing distal  
5 end 53. Lateral guard 41 is located adjacent side 14, and  
6 extends upwardly along inclined surface 18, and also  
7 tapers, from its proximal end 52 to its distal end 53,  
8 which is disposed proximate edge 19. Distal end 53 of  
9 lateral guard 41 does not encroach onto and obstruct  
10 generally horizontal surface 20. Lateral guard 42 is  
11 spaced apart from, and generally parallel to lateral guard  
12 41. Lateral guard 42 has a proximal end 54, which is  
13 disposed proximate proximal extremity 12 and attached to  
14 end 51 of element 43, and an opposing distal end 55.  
15 Lateral guard 42 is located adjacent side 15, and extends  
16 upwardly along inclined surface 18, and tapers, from its  
17 proximal end 54 to its distal end 55, which is disposed  
18 proximate edge 19. Distal end 55 of lateral guard 42 does  
19 not encroach onto and obstruct generally horizontal surface  
20 20. Lateral guards 41 and 42 taper upwardly from proximal  
21 end 12 of base 11 to edge 19 as previously intimated, and  
22 are substantially coextensive relative to one another and  
23 substantially equal in size. Support 40 can be considered  
24 part of base 11, if desired. As a matter of disclosure,

1 FIG. 5 is a side elevational view of lounge 10 illustrating  
2 base 11 and support 40, in which the opposing side  
3 elevational is a substantial mirror image thereof, and FIG.  
4 6 is a rear elevational view of lounge 10.

5

6 Support 40 can be integrally formed, or fashioned from  
7 a plurality of attached parts, if desired. Although  
8 lateral guards 41 and 42, and element 43, are connected to  
9 one another in the preferred embodiment herein disclosed so  
10 as to form its generally U-shaped character, they can be  
11 provided as separate parts attached to inclined surface 18,  
12 if desired. Support 40 can be integrally fashioned with  
13 inclined surface 18 of base 11, or attached to inclined  
14 surface 18 with sewing, adhesive, hook and loop fasteners,  
15 mutual attached snap fasteners, rivets, or other selected  
16 fastening structure.

17

18 Looking now to FIGS. 3 and 7, lounge 10 is furnished  
19 with a body-supporting harness assembly 70, which is  
20 disposed atop inclined surface 18 and consists of a harness  
21 71, constructed of a cloth or cloth-like material such as  
22 canvass or the like, having a proximal end 72 (not shown in  
23 FIG. 7) secured to inclined surface 18 of base 11 at a  
24 generally central location, and that extends outwardly

1 therefrom to a crotch portion 78, from which extends a pair  
2 of diverging distal ends 73 and 74 that are furnished with  
3 engagement elements 75 and 76, respectively. Proximal end  
4 72 of harness 72 is secured to inclined surface 18 with  
5 sewing, adhesive, a hook and loop fastener, or other  
6 selected fastening structure. Further to the harness  
7 assembly 70 are a proximal pair of opposing complementary  
8 engagement elements 80A and 80B, and a distal pair of  
9 opposing complementary engagement elements 81A and 81B.

10

11       Complementary engagement elements 80A and 80B are  
12 attached to base 11 proximate sides 14 and 15,  
13 respectively. In the immediate embodiment, complementary  
14 engagement elements 80A and 80B are attached to lateral  
15 guards 41 and 42, respectively, project inwardly toward one  
16 another as illustrated, and are disposed at a generally  
17 intermediate location between proximal extremity 12 and  
18 edge 19. Complementary engagement elements 80A and 80B can  
19 be attached to base 11 elsewhere, if desired, such as to  
20 inclined surface 18. Complementary engagement elements 81A  
21 and 81B are attached to base 11 proximate sides 14 and 15,  
22 respectively. In the immediate embodiment, complementary  
23 engagement elements 81A and 81B are attached to lateral  
24 guards 41 and 42, respectively, project inwardly toward one

1 another as illustrated, and are disposed at a generally  
2 intermediate location between complementary engagement  
3 elements 80A and 80B, and edge 19. Complementary engagement  
4 elements 81A and 81B can be attached to base 11 elsewhere,  
5 if desired, such as to inclined surface 18. Complementary  
6 engagement elements 80A and 80B are mounted closer to  
7 proximal extremity 12 than complementary engagement elements  
8 81A and 81B, and complementary engagement elements 81A and  
9 81B are mounted closer to distal extremity 13 than  
10 complementary engagement elements 80A and 80B. Accordingly,  
11 complementary engagement elements 80A and 80B are considered  
12 proximally mounted, and complementary engagement elements  
13 81A and 81B are considered distally mounted.

14

15 Engagement elements 75 and 76 are detachably engagable  
16 to complementary engagement elements 80A and 80B,  
17 respectively, as in FIGS. 1, 3, 4, and 7, so as to define a  
18 lowered position of harness 71 and thus of harness assembly  
19 70. Engagement elements 75 and 76 are also detachably  
20 engagable to complementary engagement elements 81A and 81B,  
21 respectively, as generally depicted in FIG. 2, so as to  
22 define a raised position of harness 71 and thus of harness  
23 assembly 70. In the lowered position of harness assembly  
24 70, harness 71 is disposed toward proximal extremity 12 of

1 lounge 10 and, moreover, away from distal extremity 13 and  
2 generally horizontal surface 20, so as to define a lowered  
3 body-supporting position. In the raised position of  
4 harness assembly 70, harness 71 is disposed away from  
5 proximal extremity 12 and, moreover, toward generally  
6 horizontal surface 20 and distal extremity 13, so as to  
7 defined a raised body-supporting position. When engagement  
8 elements 75 and 76 are secured, whether to complementary  
9 engagement elements 80A and 80B or to complementary  
10 engagement elements 81A and 81B, harness assembly 70 is  
11 considered closed. In each of its closed positions,  
12 harness 71 defines leg openings 85 and 86 (FIG. 3). When  
13 engagement elements 75 and 76 are detached, whether from  
14 complementary engagement elements 80A and 80B or from  
15 complementary engagement elements 81A and 81B, harness  
16 assembly 70 is considered open.

17

18 In the immediate embodiment, engagement elements 75  
19 and 76 are well-known male clip elements, and complementary  
20 engagement elements 80A, 80B, 81A, 81B are corresponding well-  
21 known female clip elements. Those having regard for the  
22 art will appreciate that other forms of detachably  
23 engageable engagement pairs can be used for the engagement  
24 elements and the complementary engagement elements of

1 harness assembly 70, including hook and loop fasteners,  
2 mutual snap fasteners, mutual hook fasteners, etc.

3

4 As previously explained, lounge 10 is useful for  
5 holding and supporting child 30 in a supine position as in  
6 FIGS. 1 and 7, and a prone position as in FIG. 2. To place  
7 child 30 onto lounge 10 in the supine position as in FIGS.  
8 1 and 7, harness assembly 70 is opened and child 30 is  
9 placed onto inclined surface 18 between lateral guards 41  
10 and 42, with his head directed upward toward edge 19, his  
11 back directed against inclined surface 18, his bottom  
12 directed against element 43, and his legs positioned over  
13 element 43, and this the child will do naturally as element  
14 43 functions to provide support for the legs of a child so  
15 positioned on lounge in the supine position as illustrated.  
16 Harness 71 is pulled over child and engagement elements 75  
17 and 76 secured to complementary engagement elements 80A and  
18 80B, respectively, securing harness assembly 70 in its  
19 lowered position, with the child's right leg disposed  
20 through leg opening 85 and his left leg disposed through  
21 leg opening 86, as shown in FIG. 7. So closed in its  
22 lowered position, harness assembly 70 functions to secure  
23 child 30 in place in a lowered position on inclined surface  
24 18 toward proximal extremity 12, while lateral guards 41

1 and 42 cooperate to inhibit lateral movement of child 30  
2 positioned therebetween on inclined surface 18. With child  
3 30 positioned onto and held by lounge 10 in the supine  
4 position as shown, lounge 10 provides a safe place for  
5 child 30 to sleep and rest, in which sleep and rest is  
6 promoted by the inclination of the child's body as provided  
7 by inclined surface 18, and this aspect is well known in  
8 the art. To remove child 30 from lounge, the foregoing  
9 steps taken to place child 30 onto lounge in a supine  
10 position need only be reversed.

11

12 To place child 30 onto lounge 10 in the prone position  
13 as in FIG. 2, harness assembly 70 is opened and child 30 is  
14 placed onto inclined surface 18 between lateral guards 41  
15 and 42, with his head directed upward toward generally  
16 horizontal surface 20, his front directed against inclined  
17 surface 18 and generally horizontal surface 20, his bottom  
18 and legs directed downwardly toward element 43. Harness 71  
19 is pulled over child and engagement elements 75 and 76  
20 secured to complementary engagement elements 81A and 81B,  
21 respectively, securing harness assembly 70 in its raised  
22 position, with the child's right leg disposed through leg  
23 opening 86 and his left leg disposed through leg opening  
24 85. So closed, harness assembly 70 functions to secure

1 child 30 in place in a raised position on inclined surface  
2 18 toward horizontal surface 20 and distal extremity 13,  
3 while lateral guards 41 and 42 cooperate to inhibit lateral  
4 movement of child 30 positioned therebetween on inclined  
5 surface 18. With child 30 positioned onto and held by  
6 lounge 10 in the prone position as shown, the upper torso  
7 of the child's body is forced outwardly over generally  
8 horizontal surface 20 so as to confront generally  
9 horizontal surface. In this raised position of child as  
10 defined by the raised position of harness assembly 70,  
11 child 30 is able to place his hands onto generally  
12 horizontal surface 20 and push himself up as illustrated.  
13 Generally horizontal surface 20 promotes this activity,  
14 namely, child 30 pushing himself up therefrom as shown in  
15 FIG. 2, which functions to promote strengthening of the  
16 muscles of the child's arms, neck, and back. When child 30  
17 becomes fatigued or tired, child 30 can, of course, rest  
18 his body and head against generally horizontal surface 20.  
19 To remove child 30 from lounge, the foregoing steps taken  
20 to place child 30 onto lounge in a prone position need only  
21 be reversed.

22

23 Looking to FIG. 9, there is seen a fragmented  
24 isometric view of lounge 10 illustrating distal extremity

1 13 of base 11 with a pocket 101 formed therein, into which  
2 is disposed a conventional electronic vibrator 100.  
3 Vibrator 100 is conventional in nature and battery-powered,  
4 and is adapted and arranged to be turned ON and OFF with an  
5 ON/OFF switch. When turned ON, vibrator 100 vibrates. The  
6 vibrations provided by vibrator 100 are transmitted to  
7 lounge 10 and, thus, to a child positioned therein. The  
8 imparted vibrations provided by vibrator 100 promote  
9 relaxation in a child positioned on lounge 10, whether in  
10 the supine position or the prone position.

11

12 Looking to FIGS. 3 and 4, vibrator 100, which is  
13 denoted schematically in phantom outline, is embedded in  
14 base 11 and is located underneath generally horizontal  
15 surface 20 at a generally intermediate location between  
16 sides 14 and 15, and this positioning of vibrator 100 is  
17 important because it focuses the generated vibrations at  
18 distal extremity 13 of lounge 10 and, moreover, to the  
19 upper torso and extremities of a child positioned on lounge  
20 10, whether in the supine position or the prone position.  
21 Pocket 101 is preferably open from distal extremity 13 as  
22 provided by opening 102 denoted in FIGS. 2, 3, and 8, so  
23 that pocket 101 can be accessed therethrough for accessing  
24 vibrator 100 disposed therein for turning it ON and OFF,

1 for replacement, for repair, and for replacement of  
2 batteries. Pocket 101 can be open elsewhere, if desired,  
3 such as from generally horizontal surface 20, lower face  
4 16, etc. Also, vibrator 100 can be positioned so as to  
5 direct its ON/OFF switch toward opening 101 for easy  
6 access. The ON/OFF switch of vibrator 100 can also be  
7 disposed externally, if desired, for easy and convenient  
8 access thereto. FIG. 8 is a sectional view taken along  
9 line 8-8 of FIG. 7, and illustrates pocket 101 and vibrator  
10 100 disposed therein, and the general positioning of  
11 vibrator 100. It will be understood that the foregoing  
12 brief description of vibrator 100 intended to be generally  
13 representative of a typical vibrator. Details not  
14 specifically illustrated and described will be readily  
15 understood and appreciated by those skilled in the art.

16

17 Although desirable as explained in this specification,  
18 support 40 can be omitted, if desired. Further to this  
19 aspect, lateral guards 41 and 42 can be omitted, if  
20 desired, and element 43 retained. Still further to this  
21 aspect, element 43 can be omitted, if desired, and lateral  
22 guards 41 and 42 retained.

1       The invention has been described above with reference  
2 to a preferred embodiment. However, those skilled in the  
3 art will recognize that changes and modifications may be  
4 made to the embodiment without departing from the nature  
5 and scope of the invention. For instance, lounge 10 can  
6 incorporate one or more receptacles, whether attached  
7 thereto or formed therein, for holding bottles, juice cups,  
8 and other forms of beverage containers or objects, etc.  
9 Lounge 10 can also incorporate one or more pockets, whether  
10 attached thereto or formed therein, for holding toys,  
11 combs, brushes, tissue paper, cleansing wipes, bottles of  
12 lotion or other topical preparations, etc. Various further  
13 changes and modifications to the embodiment herein chosen  
14 for purposes of illustration will readily occur to those  
15 skilled in the art. To the extent that such modifications  
16 and variations do not depart from the spirit of the  
17 invention, they are intended to be included within the  
18 scope thereof.

19

20       Having fully described the invention in such clear and  
21 concise terms as to enable those skilled in the art to  
22 understand and practice the same, the invention claimed is: